

SCIENTIFIC NOTE

ENTOMOBRYA KANABA (WRAY) (COLLEMBOLA:
ENTOMOBRYIDAE) AN INDOOR HOUSEHOLD
PEST IN CENTRAL CALIFORNIA

Entomobrya kanaba (Wray) is here reported as an indoor household pest in central California. Maynard (1951, A monograph of the Collembola or springtail insects of New York State, p. 14) states "It is only rarely that Collembola are reported as household pests, and then usually the damage is in the aesthetic sense." Curran (1947, Nat. Hist., 56(10):476, 1 fig.) has pointed out that the presence of springtails can be a sign that there is excess moisture in the building that should be eliminated.

During the fall months of 1977 Mr. Earl Enos, a Custodian at the Wilson Elementary School, in San Leandro, Alameda County, California, repeatedly observed small insects in the classroom sink of the kindergarten room. Often several dozen specimens would be seen in the early morning around the inside of the white enamel sink (with only a few on the drainboard). They were not noticed in other classrooms. Finally, as the identity of these unknown jumping insects was wanted, Mr. Enos collected a sample of 17 specimens and they were submitted to Mrs. Mary A. Davies to have them identified. The writers forwarded the specimens to Dr. David L. Wray, Collembolist and Entomologist Emeritus of the North Carolina Department of Agriculture, who identified them as *Entomobrya kanaba* (Wray) (deposited in the CAS and Wray collections).

Interestingly, in addition to being observed at the Wilson Elementary School, in San Leandro, Mrs. Leslie Sweeny, the kindergarten teacher, stated that she had noted Collembola in her home in Fremont, California over a period of three or four years. Also, Mrs. Cyndi Rose, a next door neighbor to Mrs. Sweeny, had a very troublesome infestation of Collembola throughout her home. Samples of the Collembola in Mrs. Rose's home were made (2 specimens on 29-IX-1977 and 60 specimens on 5-X-1977) and these were submitted to Dr. Wray, and he also identified them as *Entomobrya kanaba* (Wray). Samples were not collected in Mrs. Sweeny's home, but it is possible that they were also this species.

The infestation in Mrs. Rose's home was throughout the entire building. The collection made on September 29th was from the back of a bathroom shower curtain and this curtain was described as being "black" with Collembola. These Collembola were also stated to be in every sink, basin, tub, in the pots and pans in the kitchen, and in the clothes closets. An attempt to control the infestation with an insecticide was made (in this instance RAID was used) but it was not successful. A pest control operator

was hired to control the infestations in both the homes of Mrs. Rose and Mrs. Sweeny at a cost of \$40.00 per home. The infestation of Collembola at the home of Mrs. Sweeny was minor, however, but there was a problem with silverfish that she wished controlled.

Entomobrya kanaba was described by D. L. Wray (1953, Nature Notes, Occ. Pap. No. 1:4, fig. 2, A-F, in the genus *Drepanura*) on the basis of a large series taken by Dr. G. F. Knowlton at Kanab, Utah on June 15–16, 1952. They were collected “on a tile floor of auto camp bath room, on the sidewalk, and under plank.” Knowlton states that “in the early morning of June 16 they were graying the ground by the thousands.” About one thousand specimens were obtained. It would appear that their large numbers about dwellings may lend to their dispersal by artificial means. Wray and Knowlton (1956, Great Basin Nat., 16(1–4):4) also record *Entomobrya kanaba* from the state of Idaho from two collections—from shade tree litter and boxelder litter. Salmon, in his world catalog of Collembola (1964, Roy. Soc. New Zealand, Bull. 7 (vol. 2):440), does not list further references or distribution for this species. Christiansen (1956, Ent. News, 67(5):129–130; 1958, Bull. Mus. Comp. Zool., 118(7):469) considers *kanaba* to a synonym of *Entomobrya unostriata* Stach (1930, Abhand. Senckenberg. Naturf. Ges., 42(1):63), and provides records under the latter name from San Diego, California and Fort Collins, Colorado. Stach (1963, Polska Akad. Nauk Inst. Zool., Cracow, p. 70) discusses *unostriata* and *kanaba* and indicates some differences.

Collembola are probably present in small numbers in homes or offices, particularly if indoor plants are kept, and they may often go unnoticed. For example, *Lepidocyrtus cinereus* Folsom was recently collected on 29-IX-1977 in a pot planter in an office (PHA) at the California Academy of Sciences, San Francisco, where it is an inconspicuous species. In contrast, *Entomobrya kanaba* with other habits, probably associated with drains, has been shown to be a household pest.

Our thanks are extended to Dr. D. L. Wray for his identification of the Collembolan collections and to Mrs. Mary A. Davies, Mr. Earl Enos, Mrs. Cyndi Rose, and Mrs. Leslie Sweeny for specimens and information concerning the infestations, and to the reviewers of this note.

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